

REMARKS

Claims 1 through 10 are pending in this Application. By the present Amendment claim 11 has been cancelled. Manifestly, the present Amendment does not generate any new matter issue.

The Title.

The Examiner required a new title descriptive of the invention. By the present Amendment the title has been changed consistent with the Examiner's request.

Claims 1 through 4 and 6 through 8 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Slater, Jr. et al. ("Slater").

In the statement of the rejection the Examiner asserted that Slater discloses a submount corresponding to that claimed. The Examiner then had the temerity to ignore an express claim limitation by asserting:

No patentable weight is given to "a surface roughness ... before the solder layer is melted" because it is drawn to a product by process. The surface roughness in the final structure is not defined and therefore it can be any roughness. (Paragraph bridging pages 2 and 3 of the June 28, 2006 Office Action).

This rejection is traversed as clearly factually and legally erroneous.

Due Process of Law.

It is Applicants' prerogative, repeat Applicants' prerogative, to claim what Applicants regard as their invention, It is not for the Examiner to say otherwise. *In re Ehrreich*, 590 F.2d 902, 200 USPQ 504 (CCPA 1979); *In re Borkowski*, 422 F.2d 904, 164 USPQ 642 (CCPA

1970). Applicants are claiming a submount on which a semiconductor device is to be mounted. The submount has a solder layer thereon. The solder layer is not melted. The solder layer has a specified surface roughness “before the solder layer is melted”, repeat, “before the solder layer is melted”. **This is the product claimed; this is the product sold.** The Examiner committed **clear legal error** by ignoring an express claim limitation and improperly invoking the rubric “product by process” claim. As the Examiner should be aware, each and every claim limitation must be given consideration. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988); *In re Lange*, 644 F.2d 856, 209 USPQ 288 (CCPA 1981); *In re Wilson*, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970).

Applicants stress that the Examiner is not free to rewrite Applicants’ claims. Independent claim 1 specifically states that the solder layer has a certain surface roughness “before the solder layer is melted”. In this respect the Examiner may wish to consider not only the explicit claim language but also the written description of the specification as, for example, page 15, line 15 through page 16, line 8, wherein it is disclosed how the solder layer is formed to achieve the desired surface roughness. Thus, the Examiner clearly misinterpreted the claimed invention in a manner inconsistent with express claim language and in a manner inconsistent with the disclosure. This is legally erroneous. *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) (*en banc*).

Bearing in mind the above legally erroneous claim interpretation, Applicants stress that the claimed invention is directed to a submount with a solder layer thereon, wherein the solder layer has a specific surface roughness before it is melted. The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention such that the identically claimed invention is placed into the

recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 66 USPQ2d 1801 (Fed. Cir. 2003); *Crown Operations International Ltd. v. Solutia Inc.*, 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002). Further, when imposing a rejection under 35 U.S.C. § 102 for lack of novelty the Examiner is required to specifically identify wherein an applied reference is asserted to identically disclose each and every feature of a claimed invention, particularly when such is not apparent as in the present case. *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984). That burden has not been discharged. Indeed, the Examiner has completely and erroneously ignored the claim limitation imposing a surface roughness on the solder layer before it is melted. Applicants would stress that the only applied reference to Slater fails to disclose a submount as claimed, particularly a submount having a solder layer with the surface roughness specified in independent claim 1..

The above argued **structural difference** between the claimed invention and the submount of Slater is functionally significant. Specifically, by providing the solder layer with the recited surface roughness **before it is melted**, repeat **before it is melted**, the amount of the diffuse reflection of light at the surface of the solder layer is small. Consequently, when a detector judges the color of the surface of the solder layer by image processing, it can respond with higher fidelity to the change in the state of the surface layer. As a result, a semiconductor light-emitting device can be soldered correctly with increased probability. See, for example, page 4 of the written description of the specification, lines 7 through 13.

The above argued **functionally significant structural difference** between the claimed submount and Slater's device undermines the factual determination that Slater discloses a

submount identically corresponding to that claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986).

Applicants, therefore, submit that the imposed rejection of claims 1 through 4 and 6 through 8 under 35 U.S.C. § 102 for lack of novelty as evidenced by Slater is not factually viable and, hence, solicit withdrawal thereof.

Claims 5 and 10 were rejected under 35 U.S.C. § 103 for obviousness predicated upon Salter in view of Hikasa et al. and Kitaoka et al.

This rejection is traversed. Specifically, claims 5 and 10 depend from independent claim 1. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claim 1 under 35 U.S.C. § 102 for lack of novelty as evidenced by Slater. The secondary references to Hikasa et al. and Kitaoka et al. do not cure the previously argued deficiencies of Slater. Accordingly, even if the applied references are combined as suggested by the Examiner, and Applicants do not agree that the requisite fact-based motivation has been established, the claimed invention would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, *supra*.

Applicants, therefore, submit that the imposed rejection of claims 5 and 10 under 35 U.S.C. § 103 for obviousness predicated upon Slater in view of Hikasa et al. and Kitaoka et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

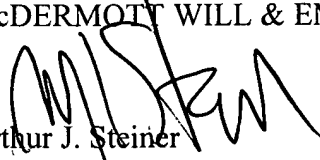
Applicants acknowledge, with appreciation, the Examiner's indication that claim 9 contains allowable subject matter. Based upon the arguments submitted *supra*, it should be apparent that the imposed rejections have been overcome and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited.

Application No.: 10/506,510

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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